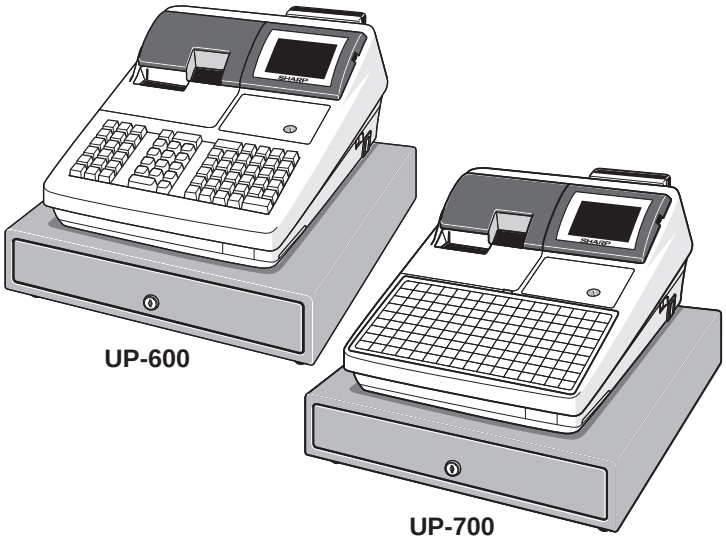
SHARP INSTALLATION MANUAL

CODE : 00ZUP600UIM/E



MODEL UP-600 UP-700

(For "U" & "A" version)

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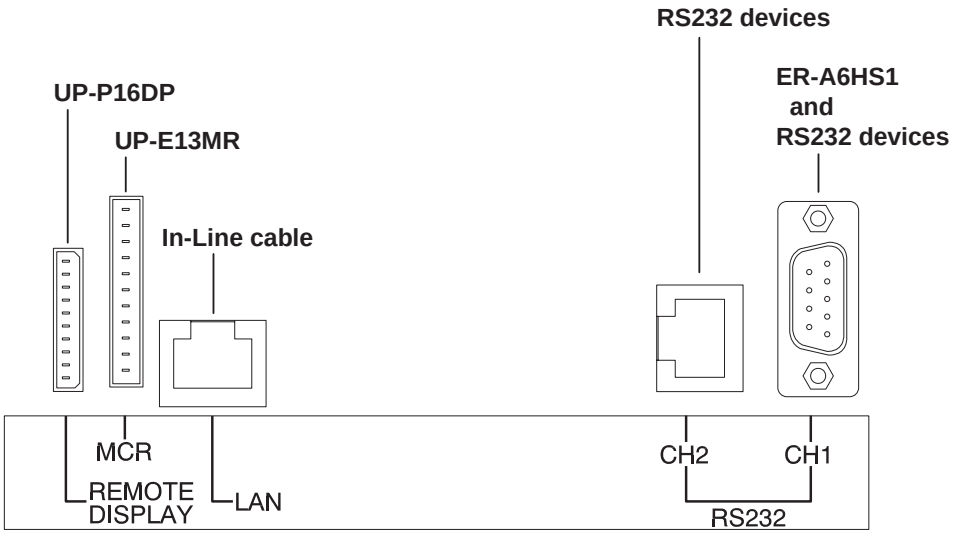
Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

INTRODUCTION : CONNECTION OVERVIEW

1. OVERVIEW OF CONNECTIONS



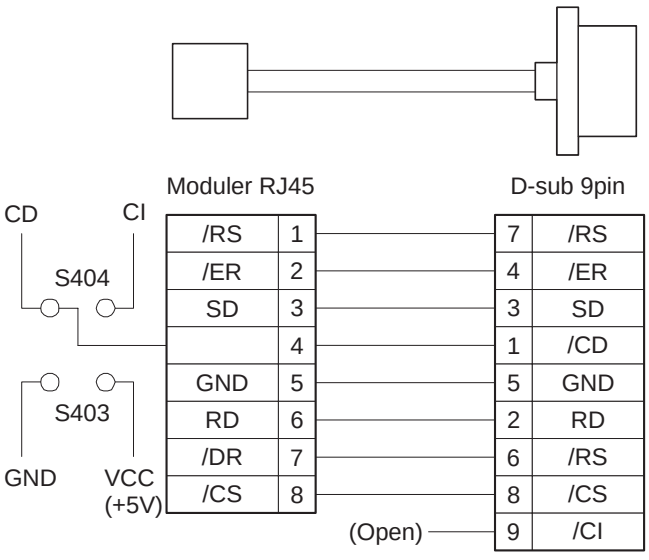
2. OPTIONAL DEVICES THAT CAN BE CONNECTED

	Standard port		Option port (ER-A5RS, ER-01EF)	
Port No.	Port1: CH1	Port2: CH2	Port3:	Port4:
Type	D-SUB 9pin	Modular RJ45	D-SUB 9pin	D-SUB 9pin
CI/+5V selectable	○	–	–	–
ER-A6HS1 (+5V necessary)	○	–	–	–
Scanner (+5V not necessary)	○	○	○	○
Modem	○	–	○	○
PC	○	○	○	○
Printer, Scale	○	○	○	○
POS utility, ER02FD.exe	–	○	–	–

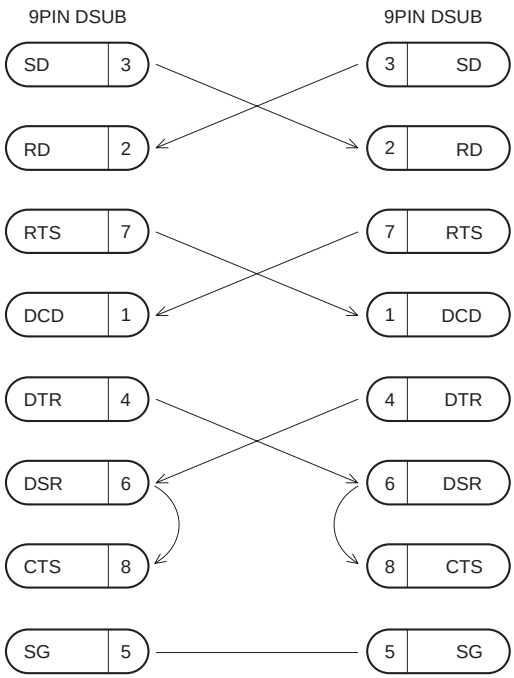
∗ The ER-A6HS1 cannot be connected to port 2, 3 or 4 because it requires +5V.

∗ The modem cannot be connected to port 2 because it uses a different signal line.

∗ For the RJ-45 modular to D-sub 9pin conversion cable, see the following:



D-SUB 9pin - D-SUB 9pin cable



3. RS-232 connecting device cable wiring diagram

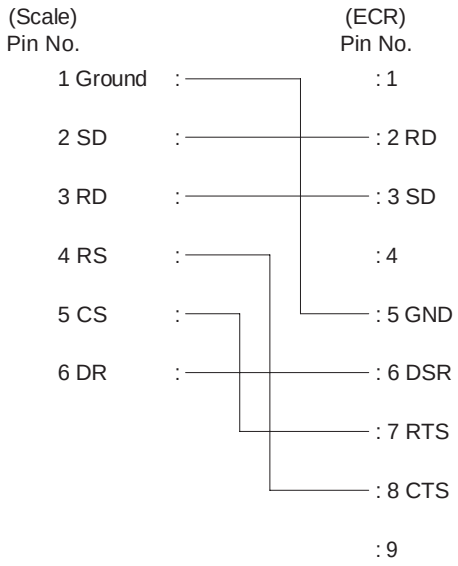
1. [Scale: Local Purchase]

1) Data transmission format

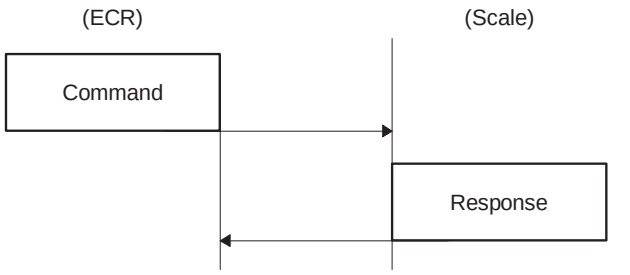
- 7bits ASCII code
- Even parity
- One stop bit
- Rate:9600 asynchronous

Their datas are fixed by ECR.

2) Pin-outs



3) Protocol



<Command>
W

<Response>
<STX>0XX.XX<CR> ;Lb
<STX>XX.XXX<CR> ;Kg
(Error)
<STX>?<status byte><CR>

Scale status byte format:

b7	b6	b5	b4	b3	b2	b1	b0
Parity bit (Even)	Always =1	Net WT. =1	Center of zero =1	Outside zero capture range =1	Under zero =1	Out of range =1	Motion =1

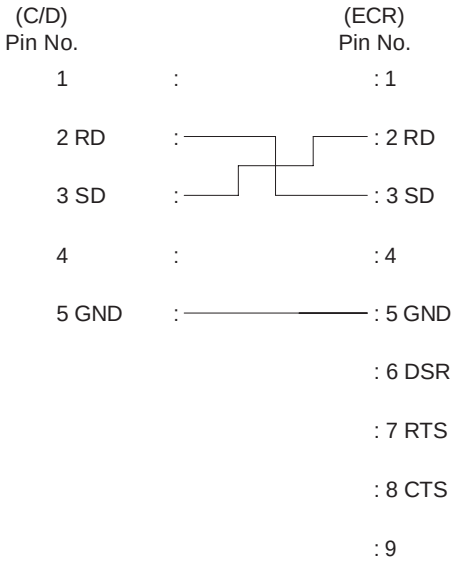
2. [Coin dispenser: by Telequip Corporation]

1) Data transmission format

- 7bits ASCII code
- One start bit
- Even parity
- One stop bit
- Rate:9600 asynchronous

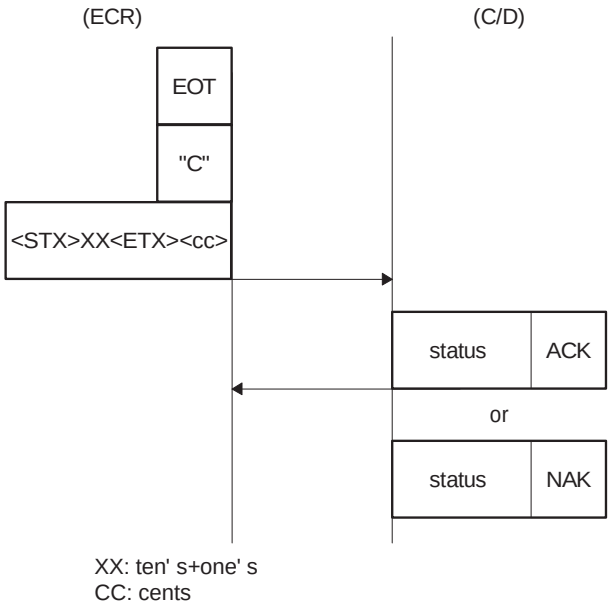
Their datas are fixed by ECR.

2) Pin-outs



3) Protocol

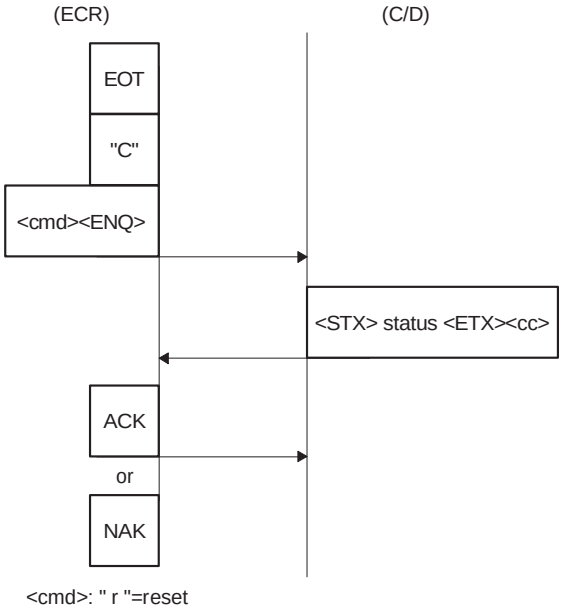
Dispense coins



XX: ten' s+one' s
CC: cents

3. [Coin dispenser: cont.]

Auxiliary command



<cmd>: " r "=reset

Scale status byte format:

b7	b6	b5	b4	b3	b2	b1	b0
	Always =1	Change dis-pensed =1	Low coin alarm =1	Dis-pensing coins =1	Always =1	Func-tion error =1	Parity error =1

4. [Roll printer: by Epson]

1) Data transmission

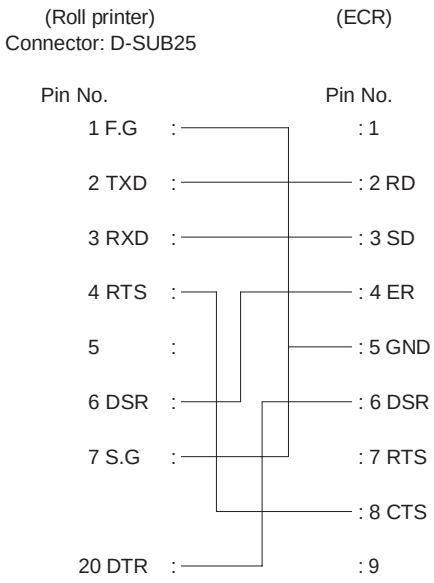
- 8bits ASCII code
- No start bit
- Non parity
- One stop bit
- Rate:9600 asynchronous

-Communications is fixed at the ECR.

2) Handshaking

- DTR/DSR control

3) Pin-outs



5. [Slip printer (TM-U295): by Epson]

1) Data transmission

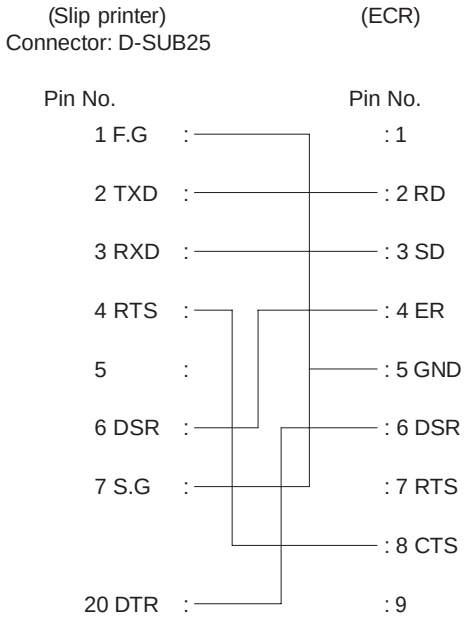
- 8bits ASCII code
- No start bit
- Non parity
- One stop bit
- Rate:9600 asynchronous

-Communications is fixed at the ECR.

2) Handshaking

- DTR/DSR control

3) Pin-outs



4. LAN

BASIC SPECIFICATIONS

Transmission system: 10 Base-T

Transmission speed: 10Mbits/sec

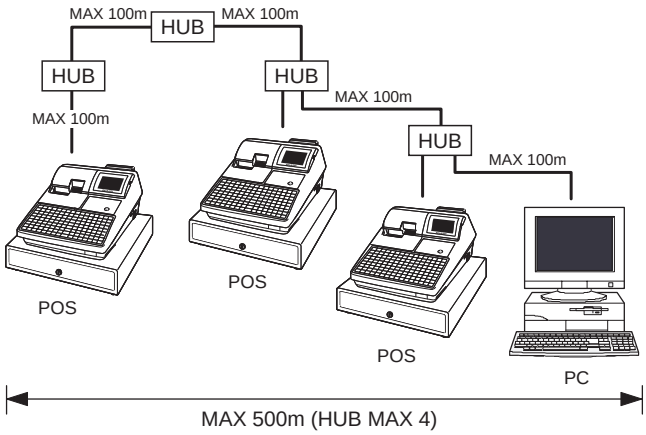
Transmission distance: Segment length max. 100m

Transmission cable: Twisted pair cable (Category 5)

No. of connectable machines: Master: 1
Satellites: max. 63

Note: 1

The example of composition of LAN (10 Base-T)



Note: 2

For connecting LANs, use UTP Category-5 cables.

UTP (Unshielded Twisted Pair) cables consist of four pairs of unshielded copper wires twisted around each other and, bundled with resin and coated into a single line. UTP cabling prevents the entrance or discharge of electromagnetic noise from or into peripheral circumstances. Cat-5 (Category-5) cables are a popular type of LAN cable that is used for connecting network equipment and can be used at speeds up to 100 Mbps. UTP cables are widely used for both 10BASE-T and 100BASE-TX interface standards.

Cat-5 cable connectors are 8-pin (RJ45) modular jacks that meet category standards. This type of modular jack meets transmission performance standards including EIAS/TIA/TBS40 and allows a high-speed communication of up to 100 Mbps.

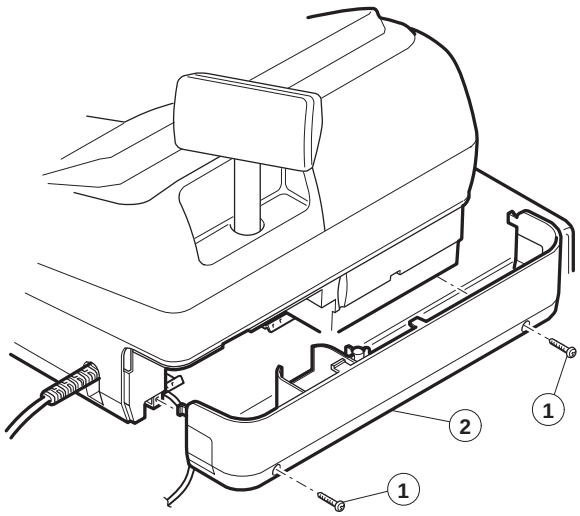
The maximum length of Cat-5 cables connecting network equipment is set to 100m depending upon attenuation of waveforms and delay times.

CHAPTER 1.
REMOVING THE REAR COVER

CAUTION: Before installation, be sure to turn off the power.

1. REMOVING THE REAR COVER

1) Remove the two screws ①.
2) Remove the rear cover ②.



2. REPLACING THE REAR COVER

Install the rear cover in the reverse order of disassembly.

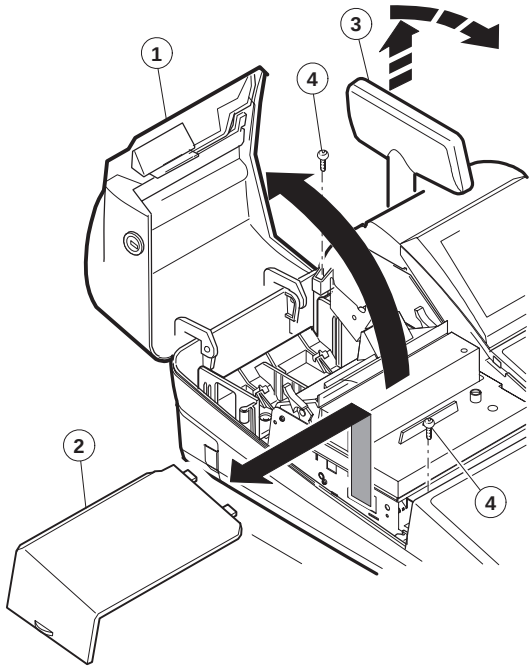
CHAPTER 2.
REMOVING THE TOP CABINET

CAUTION: Before installation, be sure to turn off the power.

1. REMOVING THE TOP CABINET

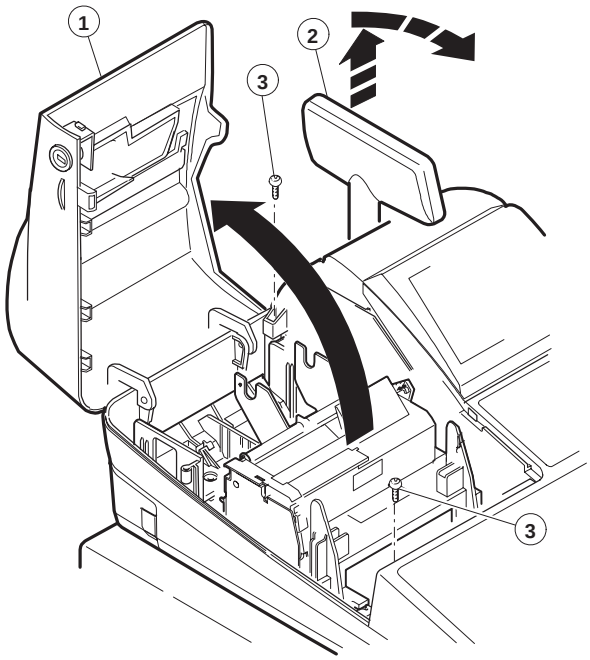
<UP-600>

1) Open the printer cover ①.
2) Remove the ribbon cover ②.
3) Lift the pop-up display unit ③.
4) Remove the three screws ④.



<UP-700>

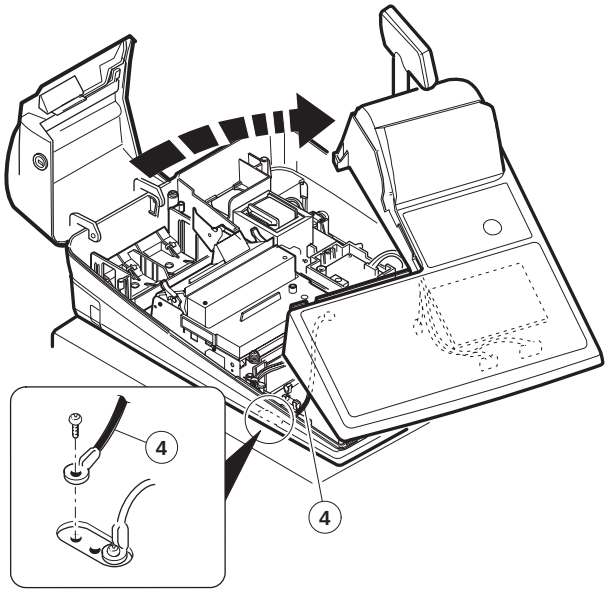
1) Open the printer cover ①.
2) Lift the pop-up display unit ②.
3) Remove the three screws ③.



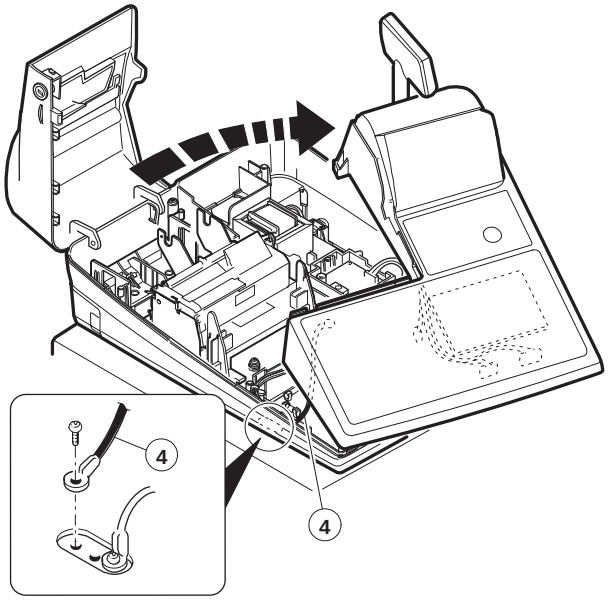
4) Slightly lift and slide the top cabinet, and remove the grounding wire ④.

   Note: Do not pull up the top cabinet unit the grounding wire and connector cables from the top Cabinet are removed.

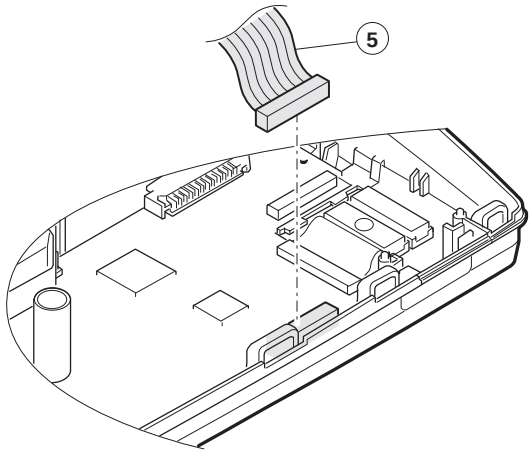
<UP-600>



<UP-700>



5) Remove the following cable between the top cabinet and the main PWB.
   Cable ⑤ between the MAIN PWB and the CKDC PWB.



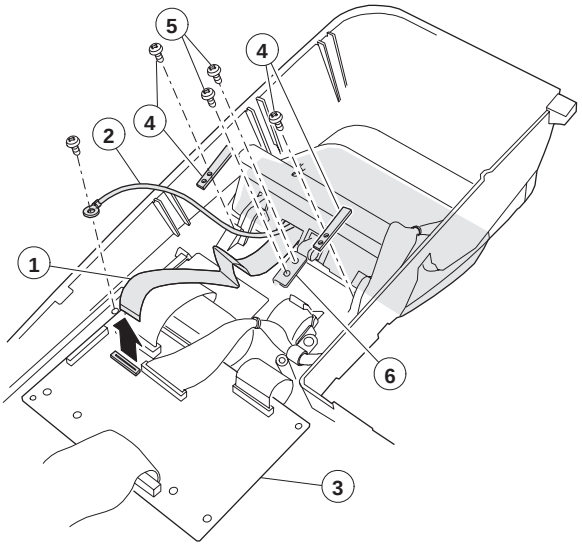
2. REPLACING THE TOP CABINET

Install the top cabinet in the reverse order of disassembly.

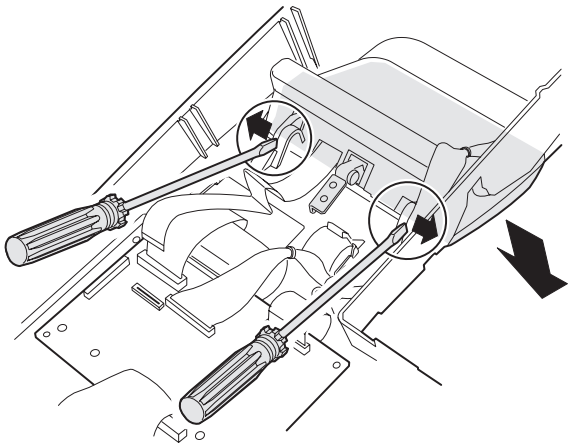
CHAPTER 3.
REMOVING THE LCD UNIT

1. REMOVING THE LCD UNIT

1) Remove the top cabinet from the bottom cabinet.
2) Remove the LCD flat cable ① and the earth wire ② from the CKDC PWB ③.
3) Remove the screw and the plate ④.
4) Remove the two screws ⑤ from the LCD HINGE ⑥.

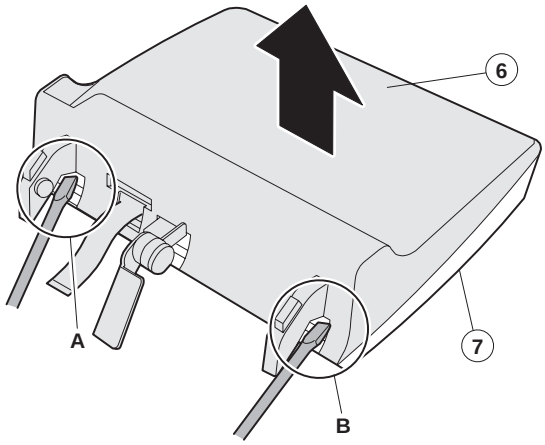


4) Remove the LCD unit from the top cabinet.

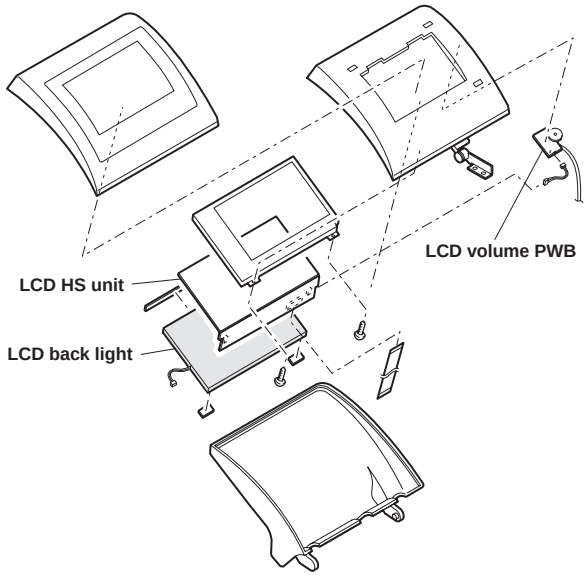


Insert a flat-bladed screwdriver into the right and left mounting areas and remove.

5) With a flat-bladed screwdriver, remove the two latches of each of the LCD rear cabinet ⑥ and the LCD filer ⑦.



∗ Turn of A and B when you remove it.



2. REPLACING THE LCD UNIT

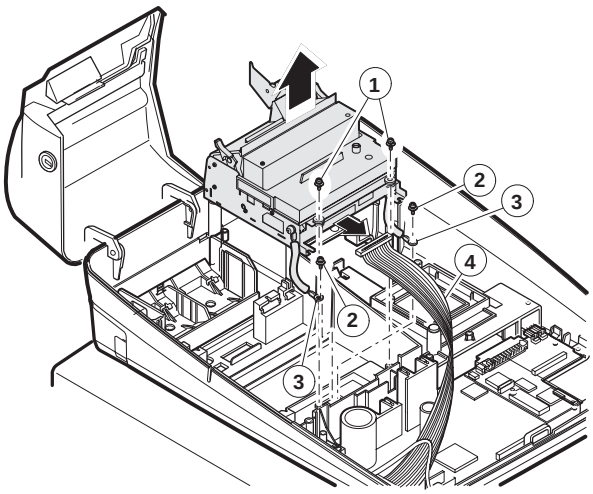
Install the LCD unit in the reverse order of disassembly.

CHAPTER 4.
REMOVING THE PRINTER UNIT

1. REMOVING THE PRINTER UNIT

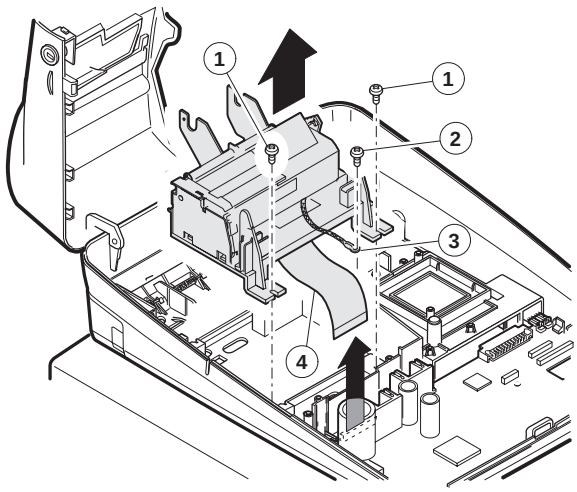
<UP-600>

1) Remove the top cabinet.
2) Remove the two screws ① fixed on the printer unit.
3) Remove the two screws ② fixed on the two earth wires ③.
4) Remove the printer cable ④ from the MAIN PWB (CN9).



<UP-700>

1) Remove the top cabinet.
2) Remove the two screws ① fixed on the printer unit.
3) Remove the screw ② fixed on the earth wire ③.
4) Remove the printer cable ④ from the MAIN PWB (CN9).



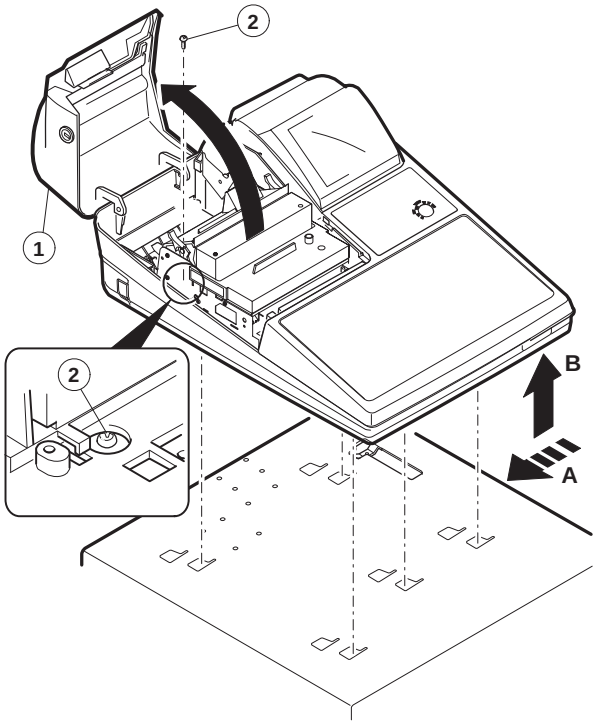
2. REPLACING THE PRINTER UNIT

Install the printer unit in the reverse order of disassembly

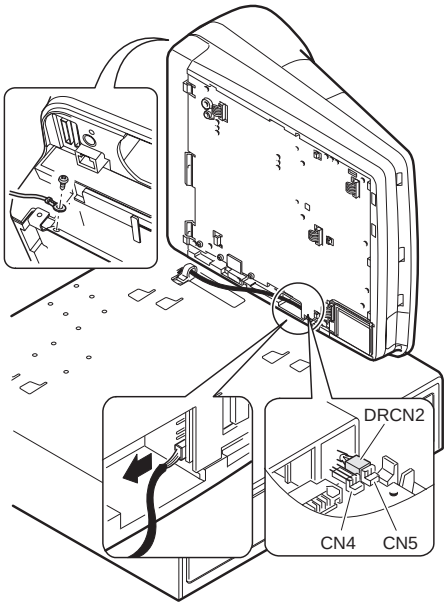
CHAPTER 5.
REMOVING THE STANDARD DRAWER

1. REMOVING THE STANDARD DRAWER

1) Open the printer cover ①.
2) Remove the screw ② fixed on the drawer unit.



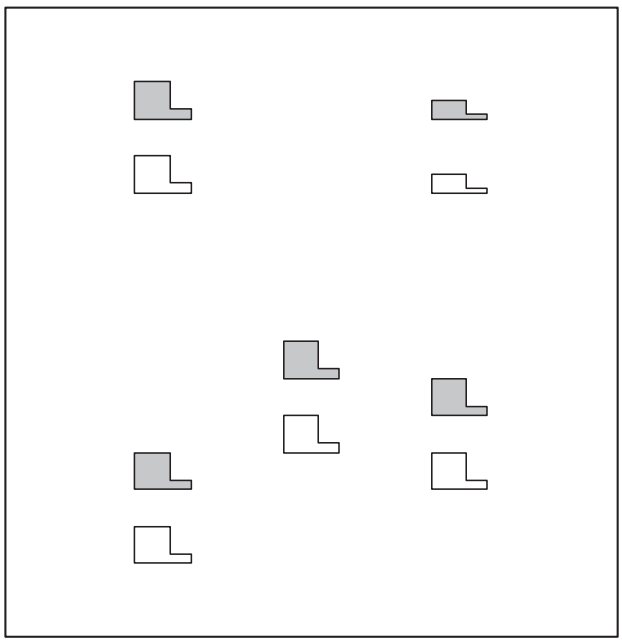
3) Stand the cabinet sideways as illustrated below, and remove the drawer connector from the MAIN PWB (CN:5).



2. REPLACING THE STANDARD DRAWER UNIT

Install the standard drawer unit in the reverse order of removal.

The drawer top has the following holes with which the drawer position can be changed.



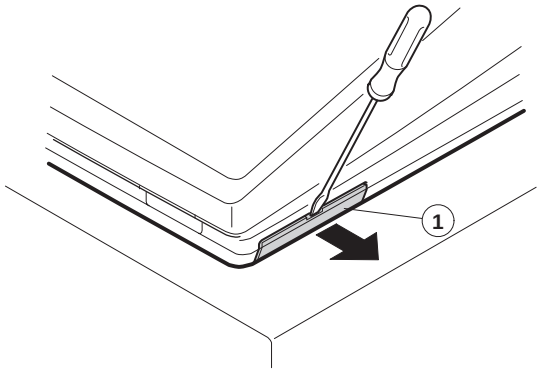
: Standard position

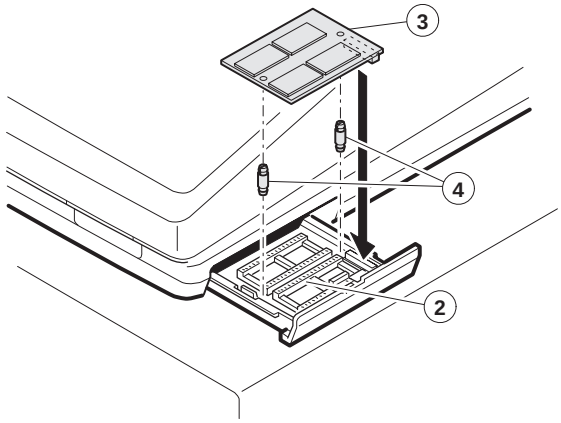
: Rear position

CHAPTER 6. EXPANSION RAM BOARD : UP-S02MB/04MB

CAUTION: Before installation, be sure to turn off the power.

1) Open the ROM/RAM case ①.
2) Install the two spacers ④ on the ROM/RAM PWB unit ②.
3) Connect the UP-S02MB/04MB ③ to the ROM/RAM PWB unit ② (CN:303)

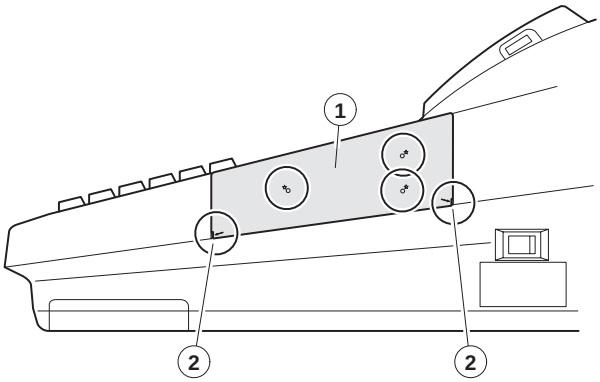




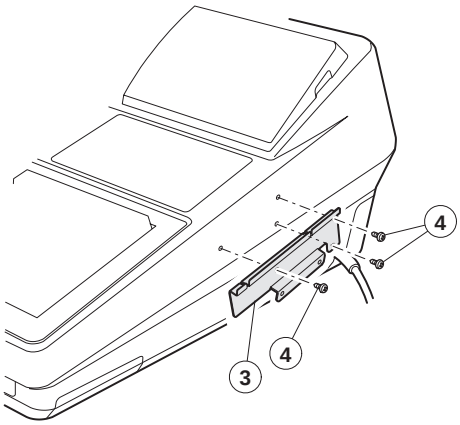
NOTE: The UP-S02MB/S04MB has an electronic double layer capacitor (C21). When removing either memory board after the machine was plugged in, use caution not to bring it close to any conductor.

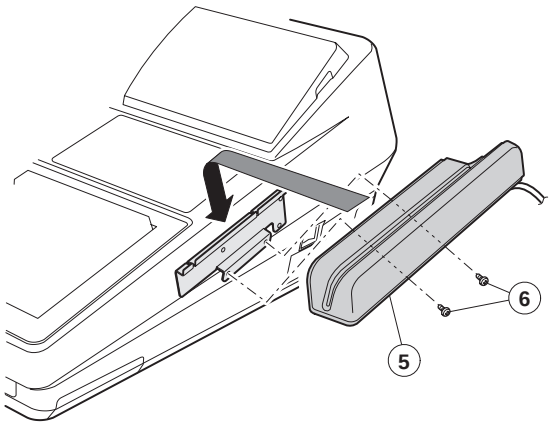
CHAPTER 7. MCR UNIT : UP-E13MR

1) Align the MCR sheet ① with the positioning line of the top cabinet ②.
2) Mark 3 points of the asterisk mark on the MCR sheet ③.

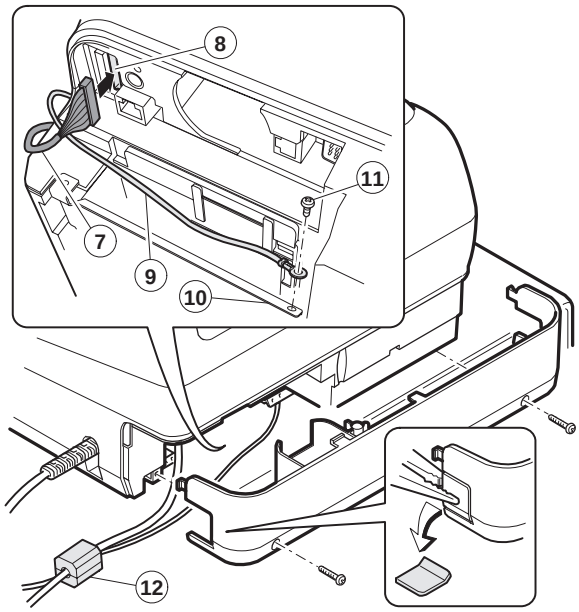


3) Aligning with the markings, secure the MCR angle 1 ③ to the top cabinet ② with 3 screws ④.
4) Install the MCR unit ⑤ to the MCR angle 1 ③ and secure with 2 screws ⑥.

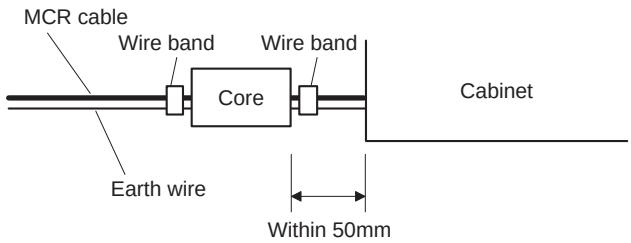




5) Remove the rear cover.
6) Connect the MCR cable ⑦ to the MCR connector ⑧.
7) Fix the earth wire ⑨ to the main chassis ⑩ with a screw ⑪.
8) Install the core ⑫ to the MCR cable ⑦ and earth wire ⑨ with two wire bands.

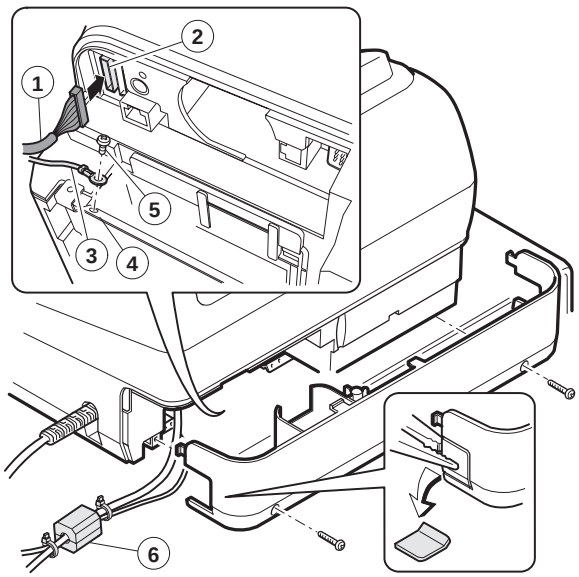


NOTE: Install the ferrite core in a position less than 50mm from the cabinet.

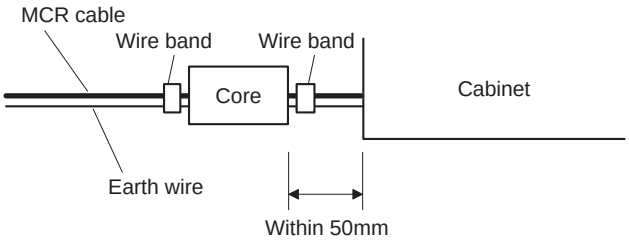


CHAPTER 8.
POLE DISPLAY UNIT : UP-P16DP

1) Remove the rear cover.
2) Connect the display cable ① to the POLE connector ②.
3) Fix the earth wire ③ to the main chassis ④ with a screw ⑤.
4) Install the core ⑥ to the display cable ① and earth wire ③.
   Secure the core ⑥ with two wire bands.



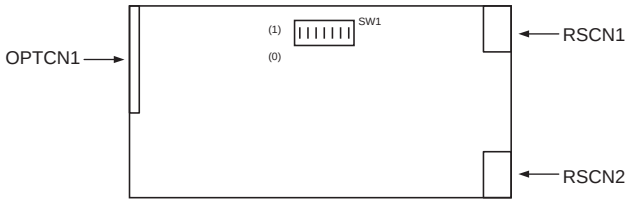
NOTE: Install the ferrite core in a position less than 50mm from the cabinet.



CHAPTER 9. RS-232 I/F :ER-A5RS

1. ER-A5RS CHANNEL SETTING

The ER-A5RS ports can be set to channel 1-7 and invalid (inhibit) with SW1 on the PWB.



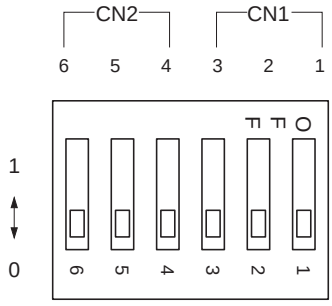
SW1 setting contents
SW1 1~3 are used for channel setting of RS-232 connector 1 (RSCN1).
SW1 4~6 are used for channel setting of RS-232 connector 2 (RSCN2).

SW1			RSCN1 setting
3	2	1	
0	0	0	RS-232 invalid
0	0	1	Channel 1
0	1	0	Channel 2
0	1	1	Channel 3
1	0	0	Channel 4
1	0	1	Channel 5
1	1	0	Channel 6
1	1	1	Channel 7

SW1			RSCN2 setting
6	5	4	
0	0	0	RS-232 invalid
0	0	1	Channel 1
0	1	0	Channel 2
0	1	1	Channel 3
1	0	0	Channel 4
1	0	1	Channel 5
1	1	0	Channel 6
1	1	1	Channel 7

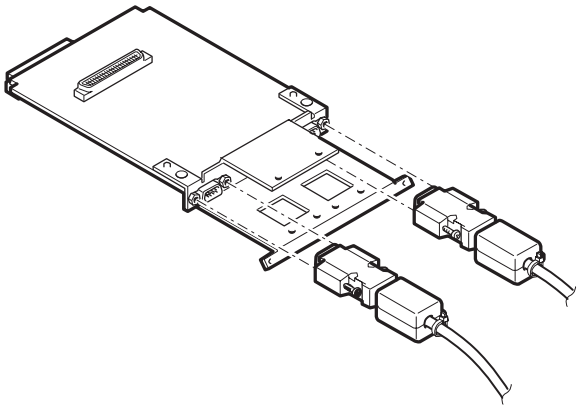
Note

1) If RSCN1 port and RSCN2 port of the ER-A5RS are set to the same channel, RSCN2 port becomes invalid and only RSCN1 is valid.
2) If RSCN of the ER-A5IN and the ER-A5RS connector are set to the same channel, the buses compete and the operation cannot be assured. In addition, it may break the hardware. Never set the two to the same channel. Be sure to set them to different channels or to set invalid.



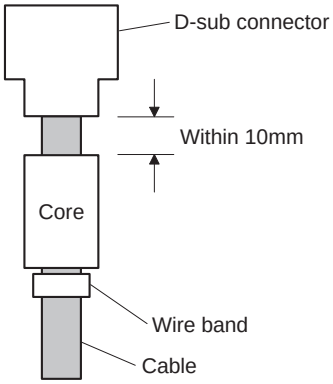
1) Connect the external cables to the I/F board.

<ER-A5RS>



- Install the core (RC0RF6700BHZZ) to the cable with a band.

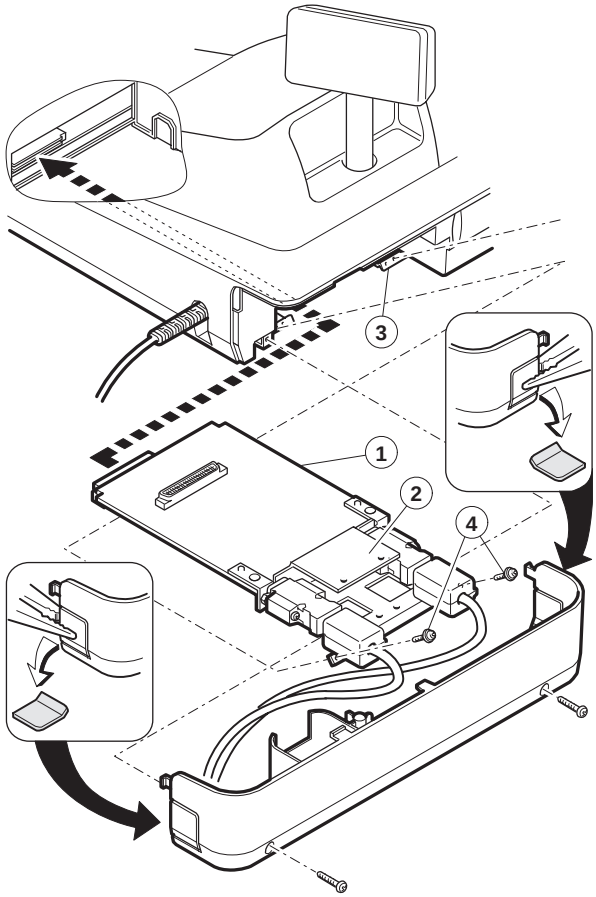
NOTE: Install the ferrite core in a position less than 10mm from the D-sub connector.



2) Remove the rear cover.

3) Insert the I/F PWB ① to the connector of the MAIN PWB

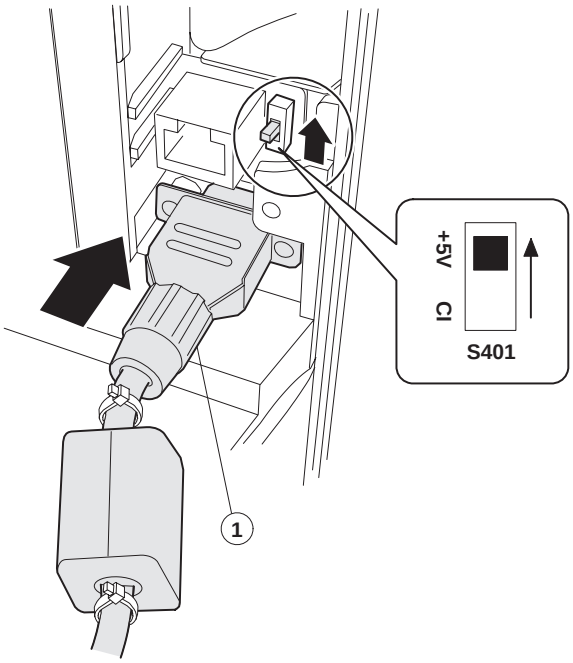
4) Fix the I/F angle ② to the main chassis ③ with two screws ④.

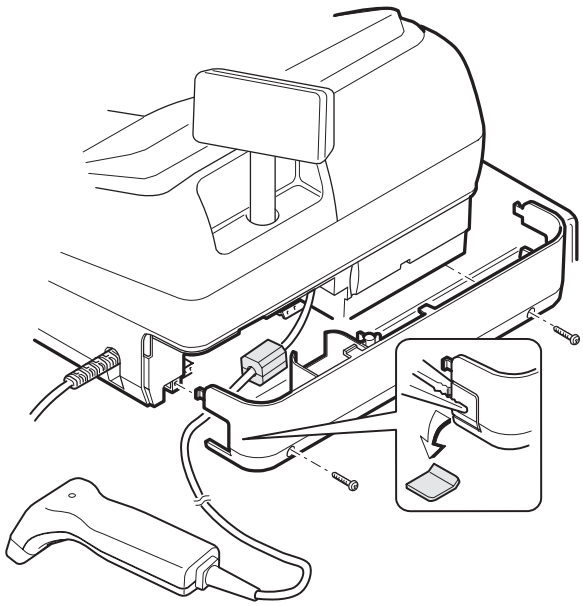


CHAPTER 10.
HAND SCANNER : ER-A6HS1

CAUTION: Before installation, be sure to turn off the power.

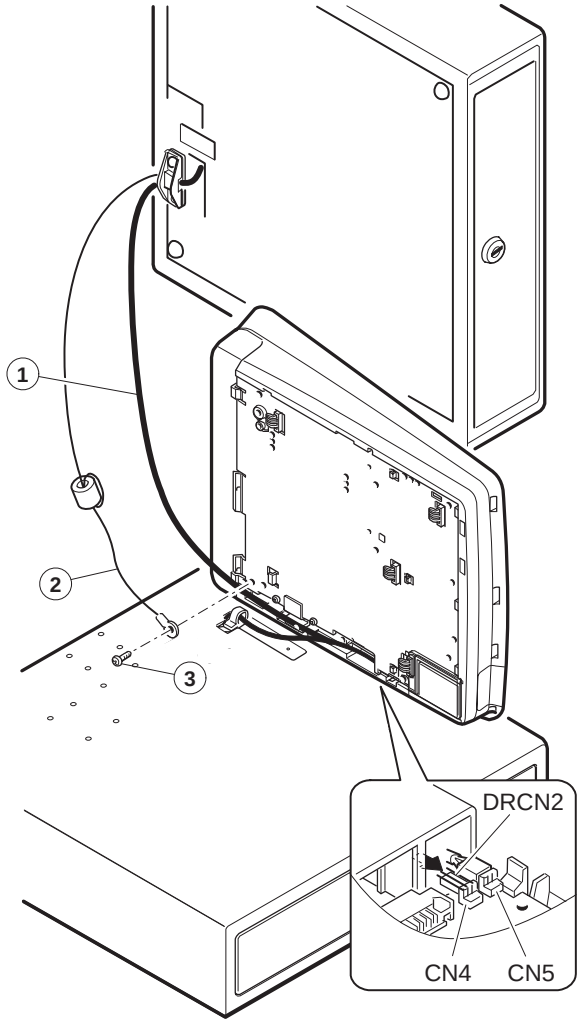
1) Remove the rear cover.
2) Connect the scanner cable ① to the RS232 CH1 connector.
3) Change the slide switch to the +5V side of the RS232 Relay PWB unit.





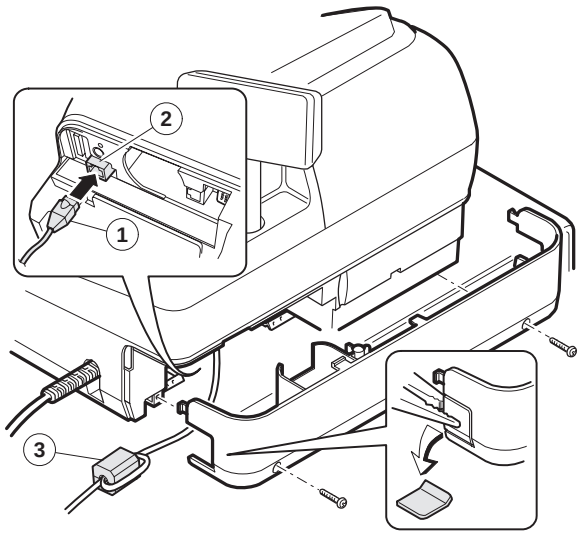
CHAPTER 11.
REMOTE DRAWER : ER-03DW/04DW

1) Remove the bottom cabinet from the standard drawer unit.
2) Connect to the remote drawer cable ① to the drawer connector of the MAIN PWB (CN:4 or CN5).
3) Fix the earth wire ② with a screw ③.

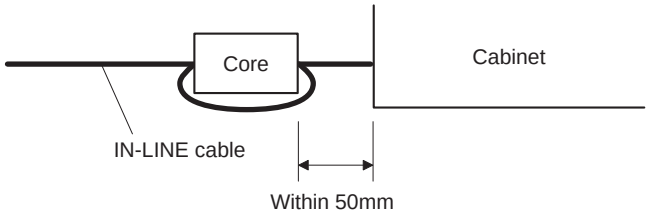


CHAPTER 12. IN-LINE CABLE

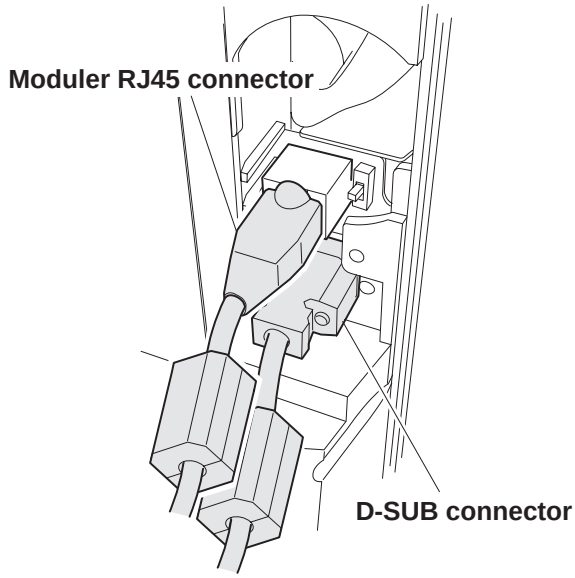
1) Remove the rear cover.
2) Connect the LAN cable ① to the LAN connector ②.
3) Install the core ③ to the LAN cable ②.



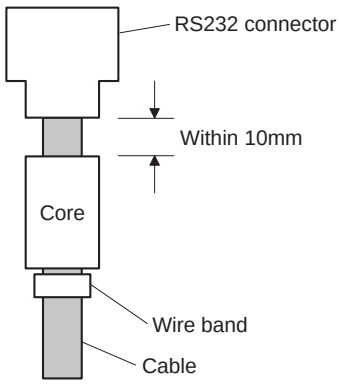
NOTE: Install the ferrite core in a position less than 50mm from the cabinet.



CHAPTER 13. RS232 DEVICES



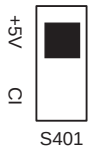
NOTE: Install the ferrite core in a position less than 10mm from the RS232 connector.



For the RS232 Relay PWB, the signals can be switched over according to the device to be connected.

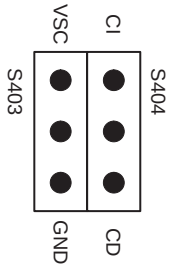
a) D-SUB connector

With the switch: S401, the signal to Pin 9 can be switched over between +5 and CI.



b) Modular RJ45 connector

With the switches: S403/S404, the signal to Pin 4 can be switched over between CD, CI, VCC (+5V) and GND.



∗ Do not change the default positions unless instructed to.

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